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Indian Standard

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Transportation of Over-Dimensional Consignment By Road — Guidelines

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Transport Services Sectional Committee, SSD 01

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Transport Services Sectional Committee, had been approved by the Service Sector Division Council.

During transportation, over-dimensional loads may collide with overhead or side structures causing damage to the structure and injury to the driver or crew members of the vehicle or persons nearby the structure or the vehicle. Loads not properly stacked or positioned may affect the stability of the vehicle, causing it to lose control or overturn with obvious consequences to the driver, crew members and other road users. Therefore, it is the responsibility of all stakeholders to ensure the safe movement of over-dimensional consignment.

This standard has therefore been formulated to provide guidelines to all stakeholders including vehicle owners/transport agencies, contractors, consignors, consignees, operators and drivers of goods vehicles carrying over-dimensional consignment with regard to the safe transportation of goods.

The standard provides the guidelines for safe transportation of over-dimensional consignment (ODC) including permissions and approvals, material lashing and locking requirements, in-transit parking, material loading and centre of gravity, general safety requirements, responsibilities of relevant stakeholders, safety of crew members, training and development, and documentation.

The provisions of this standard are without prejudice to the various concerned statutes brought out by the central and state governments and directions of the concerned government bodies, including the *Motor Vehicles Act,* 1988; *Central Motor Vehicle Rules,* 1989; *Motor Transport Workers Act*, 1961; *Public Liability Insurance Act,* 1991; *Motor Vehicle Driving Regulations* 2017. In addition, the guidelines on transportation of ODC brought out by the Ministry of Transport and Highways/NHAI/BRO/PWD issued time to time shall be followed.

The composition of the Committee responsible for the formulation of this standard is given in Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 ‘Rules for rounding off numerical values (*revised*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TRANSPORTATION OF OVER-DIMENSIONAL CONSIGNMENT BY ROAD — GUIDELINES

1 SCOPE

This standard provides guidelines relating to safe transportation of over-dimensional consignment (ODC) of materials and goods, including freight containers, loose bulk loads, pallets, heavy machinery/equipment, metal loads like steel rods, bars, pipes, slabs, billets, wires and other similar goods, in open and closed heavy motor vehicles, such as truck/semi-trailer, dumper, modular hydraulic trailer, tractor-trailer, etc based on the type, nature and dimension of the consignment being transported.

NOTE — Not every eventuality, or type of load, or method of restraint is or could be included in this standard. However, in normal situation, the general principles, outlined in the standard have provided sufficient guidance for whatever type of load, or restraint used, and should be followed.

2 TERMS AND DEFINITIONS

2.1 Over-Dimensional Consignment (ODC) — A cargo carried as a single indivisible unit and which exceeds the dimensional limits as prescribed in the *Central Motor Vehicle Rules, 1989*.

NOTE — For understanding, few examples of over-dimensional consignment are given at Annex A of the standard.

2.2 Certificate of Registration — The certificate issued by a registering authority to the effect that a motor vehicle has been duly registered in accordance with the provisions of Chapter IV of the *Motor Vehicles Act, 1988*.

2.3 Lashing — Fastening devices, chains, cables, ropes or webbing used to restrain loads.

2.4 Anchorage/Lashing Points — A point/hook to which something, such as the lashings or straps securing a load, can be safely attached.

3 RISK PERCEPTION, MEASUREMENT AND MITIGATION

Over-dimensional consignment may pose various types of risk during transportation due to protruding of consignment from the vehicle such as consignments protruding outside the body sideways, along the length and height. Therefore, goods transport agency/consignor/vehicle owner/vehicle driver should ensure the measurement of risk involved while transporting ODC depending on the basis of quantum of protrusion, sharpness and centre of gravity of the consignment. Based on the risk perception and the measurement of risk, the transport agency in consultation with the consignor/whomsoever is liable to pay the freight towards specific movement should prepare the mitigation plan. Transport agency should implement the mitigation plan for different type of risk situations that may arise during the course of transportation.

4 MOVEMENT OF OVER DIMENSIONAL CONSIGNMENT

4.1 Over Dimensional Consignment

4.1.1 The transport agency should be aware of permissible limits for transportation of over dimensional consignment as per the guidelines of the Ministry of Road Transport and Highways, *Motor Vehicles Act 1988*, *Central Motor Vehicle Rules, 1989* and other applicable law of the central and state government.

4.1.2 To promote road safety, the vehicle owner/goods transport agency/consignor/whomsoever is liable to pay the transportation freight charges shall avoid transportation of consignment beyond the permissible dimensions approved by the concerned authorities for the type of vehicle engaged, and permitted as per the govt notifications issued from time to time.

4.1.3 For movement of over-dimensional consignment, a prior approval for the specific trip shall be obtained as per the applicable government/statutory requirements.

4.1.4 The vehicle owner/vehicle driver should ensure bold display in large font at both the ends (front and rear most) of the motor vehicle indicating the ‘oversized cargo’ and necessary safety indicators like reflector stickers on the cargo. The best practices by virtue of technological advancements in the RFID (Radio-Frequency Identification Device) should preferably be followed.

4.1.5 In case the load overhangs and extends behind the rearmost part of the vehicle, adequate precautionary measures should be taken while displaying oversized cargo boards along with stop lamp, direction indicator, obligatory rear lamp, obligatory reflector, reversing lamp, registration mark and plate of the vehicle.

4.1.6 No protruding consignment should touch the road surface.

4.1.7 In case of transportation of long sections, like iron and steel rods, bars and pipes, the same should be wrapped in bundles and the vehicle should be loaded in such a way that no single rod/bar/pipe can move independently.

NOTE — For safe transport practices on arrangement of loads, refer Annex B.

4.2 Permissions and Approvals

4.2.1 Central/state authorities should ensure proper system in place to provide online ODC movement permissions within a reasonable time limit (preferably real time basis) depending on the nature, type, dimensions and weight of the consignment. The data may preferably be used through analytical tools, like artificial intelligence, by the concerned authorities for improvement in the process to grant subsequent permissions.

4.2.2 The owner of vehicle/transport agent is responsible for compliance of applicable government guidelines for movement of ODC including for:

a) obtaining prior approval from designated authorities, as applicable;
b) preparation of method statement that includes:
    1) stowage plan indicating centre of gravity, lashing points and axle load;
    2) route plan with allowable turning radius, original and revised, if any;
c) painting the vehicle for entire width by yellow and black zebra stripes on the front and rear sides based on the existing provisions given in government guidelines;
d) covering the entire overhang with red reflector/reflective tape to facilitate clear vision of overhanging portions during dark/night time;
e) displaying adequate danger flags and lights; and
f) adhering to maximum speed limits permitted by the authority while moving ODC loaded vehicle.

NOTE — In addition to the above, all other relevant regulatory requirements shall be met.

5 MATERIAL LASHING

Adequate lashing of consignment on vehicle should be done to avoid accidents due to cargo spillage in transit. While carrying ODC, the goods transport agency/vehicle owner/consignor for the specific goods consignment should ascertain proper lashing prior to physical departure of ODC loaded vehicle from origin of the trip and should also ensure the followings:

a) The load absorbing capacity of lashing materials and their types should be decided based on the type of consignment and the loading arrangement. The lashing materials used should have valid test certificates.
b) The lashings used to restrain the load should always be attached to anchorage points that have sufficient strength to sustain the expected stress, as any restraint system is only as strong as its weakest component.
c) When bundles of reinforcing mesh of different sizes are being carried, the bundles with the smaller cross-sectional area should be on top to avoid overhang. Lashings should be carefully located between the cross-wires of reinforcing mesh so that there is no danger of damage to the lashings from the end of the cross-wires and the lashing can be securely tightened.
d) In case of stacking of consignment, suitable dunnage with adequate capacity should be used to ensure stability during transit.
e) To prevent forward movement, the load should be placed in contact with a headboard or otherwise be securely restrained. To achieve an even weight distribution, the long loads are sometimes carried on a bolster type headboard so that the load projects forward over the driver’s cab. In this case, individual items should be combined into the largest or heaviest unit feasible and forward restraint provided by lashing the entire load securely to the bolster. However, in no case the cargo should project beyond the front most end of the vehicle.
f) In order to avoid material wobbling during transit and causing high chances of falling over from the vehicle, usage of damaged dunnage materials, like wooden blocks, should be avoided.
g) In transit of ODC, the vehicle driver should check the desired tension and condition of the lashing every 12 h. In case any tightening or replacement of lashing is required, it should be done before further movement of vehicle.
h) The ODC should preferably be covered with loose canvas so that sides are not exposed.

6 IN-TRANSIT PARKING

Considering that transit parking by the vehicle carrying ODC on public roads is unsafe, adherence to vehicle safe parking practices should be ensured to avoid accidents. The driver of the vehicle carrying ODC should ensure that:

a) the vehicle is not parked on open roads with vehicular traffic near to the vehicle;

b) parking of vehicle is done in the designated parking bays/roads with proper hazard indications like parking cones/hazard lights and parking indicators; and

c) parking locations are preferably identified and planned before the start of the movement and the same to be checked and verified by the transport agency and communicated to the driver.

7 MATERIAL LOADING AND CENTRE OF GRAVITY

7.1 Loading Arrangements

Before loading of ODC on the motor vehicle, it should be checked to ensure that its load platform, bodywork, anchorage points and twist locks where fitted, are appropriate for the load, and are in a good and serviceable condition. The legal requirements of maximum permitted axle and gross vehicle weight limits should be met.

The load should be placed in contact with a headboard. Where this is not practicable, additional means of securing may be used which may include:

a) effectively moving the headboard rearwards wherever feasible, fitting an obstacle across the vehicle platform which should be firmly attached to the chassis frame;

b) use of blocks, scotches, bolsters or wedges to prevent individual items of a load moving in any direction, and ensuring that these are adequately secured to the vehicle platform; and

c) additional lashing are provided, wherever required.

7.2 Centre of Gravity

7.2.1 The centre of gravity of load should be kept as low as possible to achieve maximum stability when the vehicle is put to braking, or accelerated or changes direction.

7.2.2 In order to achieve maximum vehicle stability and maintain centre of gravity, the followings should also be ensured:

a) The load should be spread, to give an even weight distribution over the whole floor area;

b) When a load is stacked, the larger and heavier items should be placed at the bottom;

c) The heavier items should be placed nearer to the centre line of the vehicle and the lighter ones towards the sides;

d) When a load is stacked, the lower packages should be strong enough to support the others when the vehicle is put to braking, cornering or accelerating;

e) No layer should be bigger than the one underneath it; and

f) The weight of heavy loads of small dimensions should be distributed across the vehicle platform.

8 LOCKING

The mechanical locking of cargo and the loading platform of the vehicle should be done adequately. The mechanical locking requires that both the cargo and the loading platform have locking devices that are strong enough and suitable for each other. The locking devices shall be able to withstand the forces on the cargo. Consideration should be given to the fact that due to the tolerances between the fittings and the locking device, not all devices should be engaged simultaneously. For example, if four locking devices are used, only two may be considered to take up any forces simultaneously in any direction.

9 RESPONSIBILITY OF STAKEHOLDERS INVOLVED IN MOVEMENT OF ODC

All the stakeholders responsible for movement of vehicle carrying ODC on public roads shall adhere to the applicable rules, regulations and safe work procedures/guidelines of government including the other responsibilities of the following stakeholders in particular as enlisted thereunder:

a) *Driver of vehicle*

The driver of vehicle carrying ODC should:

1) conduct regular inspection of vehicle as per checklist made available by the loading supervisor;
2) inform about accident, if any, to vehicle owner/goods transport agency;
3) ensure transit parking of the vehicle as per **6**;
4) be more cautious when transporting over dimensional heavy loads placed at high points as high loads will affect vehicle stability and may cause it to overturn while turning;
5) not allow any person to stand at foot rest or sit on the loaded material of the vehicle;
6) never drive vehicle beyond prescribed speed limit;
7) give prior signal at least 30 m before taking turn at right or left side;
8) use seat belt while driving vehicle and all the vehicles be fitted with seat belt for all the crew member(s); and
9) not use mobile phones while driving, with or without accessories like hands free, wireless, headset, bluetooth, etc.

NOTE — In addition, compliance of Motor Vehicle Driving Regulations 2017 by the driver shall be ensured.

b) *Vehicle owner/transport agency and consignor*
   1) Vehicle owner/transport agency and consignor should ensure securing and lashing of ODC cargo under close supervision of trained and qualified personnel, trained from institute approved/affiliated by state/central government authorities.
   2) Transport agency/consignor should decide number of crew members depending on the type of consignment, safety required, length of journey, challenges on route, etc. The crew member should preferably be not less than 3 excluding driver.
   3) The vehicle owner/transport agency should ensure proper education and health (physical/mental) of the driver. The vehicle owner is responsible to ensure certification of drivers as well as to arrange periodic trainings and health check-ups. All such records of driver should be maintained by the vehicle owner and should be produced on demand by the authorities. The drivers having requisite certification, training and health should only be allowed to drive the vehicle.
   4) Consignor should be responsible to provide proper documents of consignment to the goods transport agency. The consignor should also keep relevant records of consignment including vehicle details and should inspect the consignment before start of movement of ODC for compliance of applicable statutory/regulatory requirements or any special requirements of the consignor/consignees.
   5) The owner of motor vehicle should ensure valid Insurance of the vehicle to comply with the provisions of *The Motor Vehicle Act,* 1988 and *Public Liability Insurance Act,* 1991.

c) *Road and bridge authorities/highway authorities/local authorities/toll plaza*
   1) The road and bridge authorities/highway authorities/local authorities/toll plaza should provide required support for movement of the vehicle and crew members including availability of safe parking facilities, rest facilities, medical support, etc.
   2) The road and bridge authorities should share the geometry details on applicant request like road width, turning radius, congestion areas, parking locations, load carrying capacity of bridges/flyovers, etc, to help goods transport agency/consignor/vehicle owner/whomsoever is liable to pay the freight towards the specific movement to finalize the most feasible and safe route for transportation of ODC.

10 GENERAL SAFETY REQUIREMENTS

The following general safety requirements should also be complied with:

a) The vehicle should not be loaded beyond its carrying capacity;
b) Before starting vehicle, transport agency/agent should ensure that the material loaded on the vehicle is properly secured;
c) The consignor, may also inspect the arrangements for movement of ODC to ensure that the consignment is adequately secured;
d) The vehicle owner/transport agency should provide a rear camera in the motor vehicle carrying ODC and rear camera feed should be available in the driver cabin;
e) No one should sit or take rest under the vehicle or within the vicinity of 3 m of the vehicle or at any parking place area;
f) Any crew member including helper should not distract/disturb the driver while driving the vehicle;
g) Date and time of duty start of the driver should be recorded in a logbook so as to monitor duty stipulated hours;
h) No unauthorized person should be allowed to travel in the vehicle;
j) Crew members should be trained including for use of first aid; and
k) Vehicle servicing and maintenance should be performed at the appropriate time, mileage and driving condition intervals specified in the vehicle's manual.

11 SAFETY OF CREW MEMBERS

In order to ensure the safety of crew members, ride should not be permitted to any person in any circumstances on:

a) rear enclosed compartment excluding hydraulic trailers;
b) load platform of an open sided or partially open sided vehicle;
c) top of the cab of any vehicle;
d) part of any load being carried; and
e) any tailgate or sideboards.

12 TRAINING AND DEVELOPMENT

In order to reduce the accidents during movement of ODC, adequate training should be imparted to the staff of vehicle owner/transport agency/vehicle drivers/operators/ODC equipment manufacturers/service recipient, as relevant, in the following areas:

a) Periodical training and assessment by designated authorities like Regional Transport Office (RTO)/Logistics Skill Council (LSC) for drivers carrying ODC should be conducted and specialized licence or certificate should be issued;
b) Clear understanding of the risks involved while travelling on the public roads;
c) Plan of loading and lashing of ODC;
d) Stability of the loaded material over motor vehicle during transit;
e) Behavioural training to the drivers;
f) Actions required to be taken immediately in case of accident/emergency situations; and
g) Compliance of permitted travel plan of the vehicle.

13 DOCUMENTATION

13.1 Consignor

The consignor should provide the following documents to the transport agency:

a) Description, dimensions and approximate weight of ODC to be transported;
b) Contact details of representative of consignee;
c) Complete address of consignee; and
d) Special instructions, if any, for transport agency and consignee for loading, handling, unloading of consignment.

13.2 Transport Agency

The transport agency should have the following documents at the time of commencement of transportation of ODC:

a) Registration certificate of vehicle;
b) Valid insurance certificate;
c) Approval of government authorities for transportation of ODC as applicable;
d) Valid licence of the driver of the vehicle;
e) Route map mutually agreed between consignor and transport agency and approved by the government authorities;
f) Records of education and health (physical/mental) of the driver; and
g) Emergency contact numbers that should be provided to drivers for exigencies.

ANNEX A

EXAMPLES OF OVER-DIMENSIONAL CONSIGNMENTS

(*Informative*)

(*Clause* 2.1)

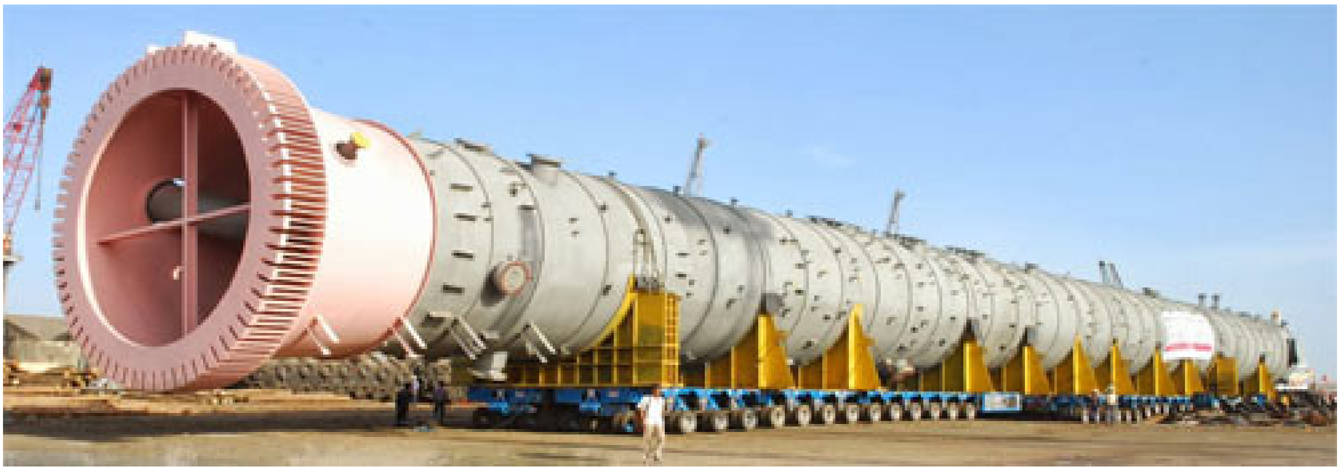

FIG. 1 TRAILER CARRYING HUGE MACHINERY PART

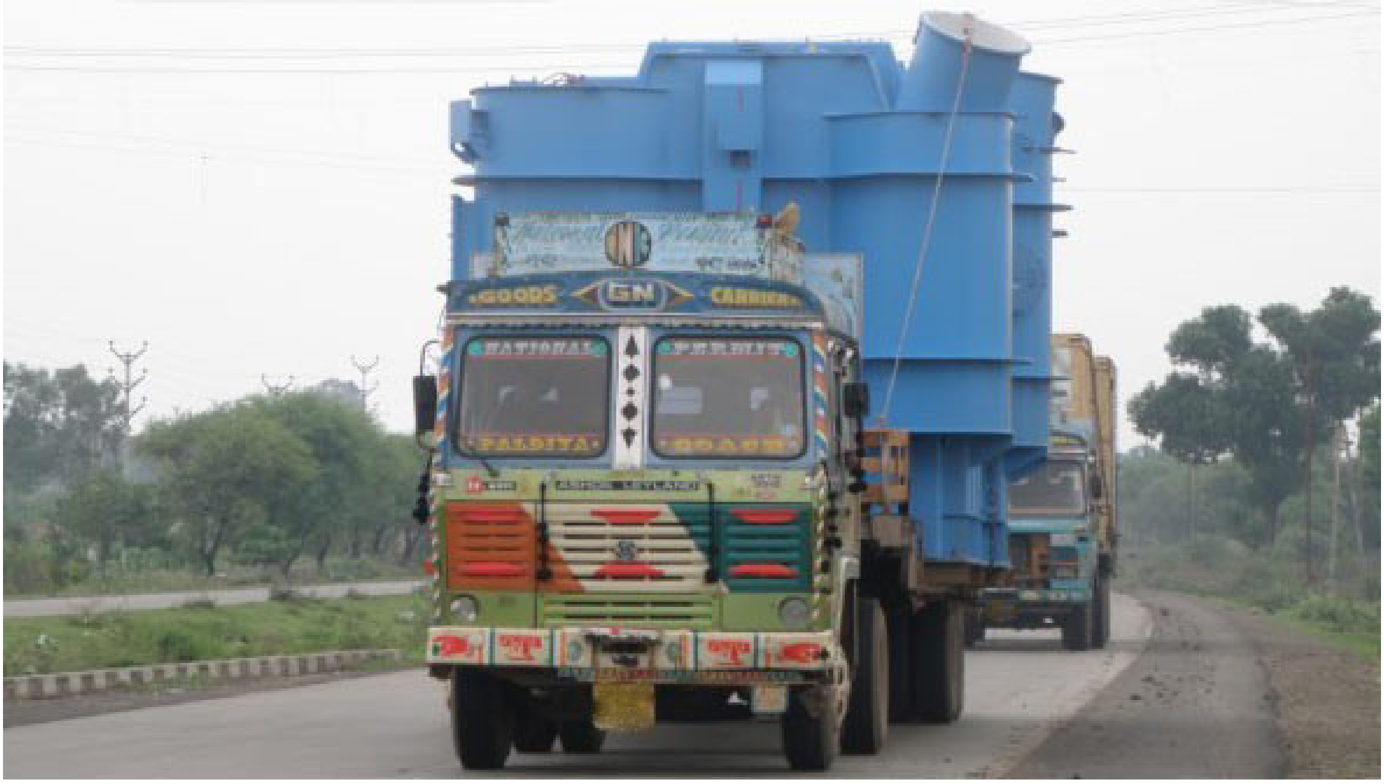

FIG. 2 TRUCK CARRYING OVERSIZED CARGO

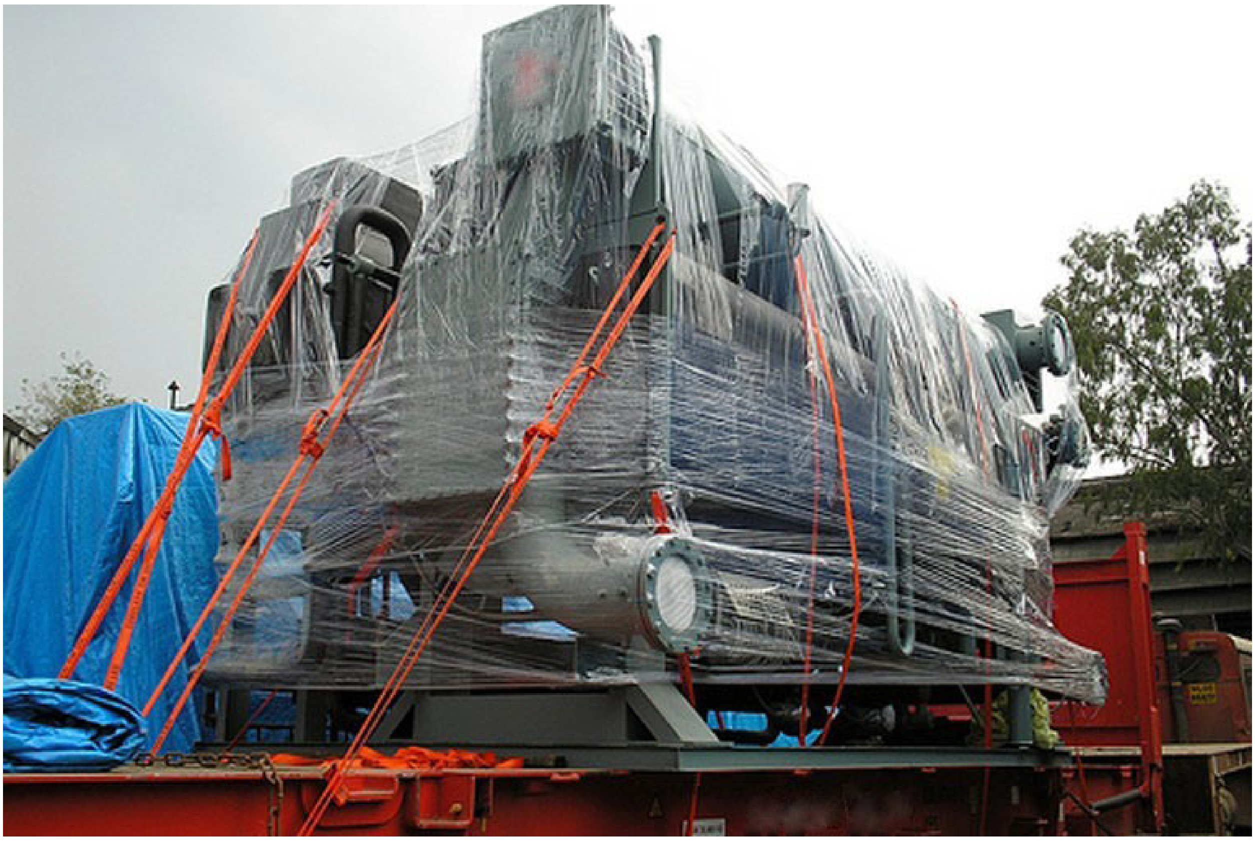

Fig. 3 Truck Carrying Heavy Equipment

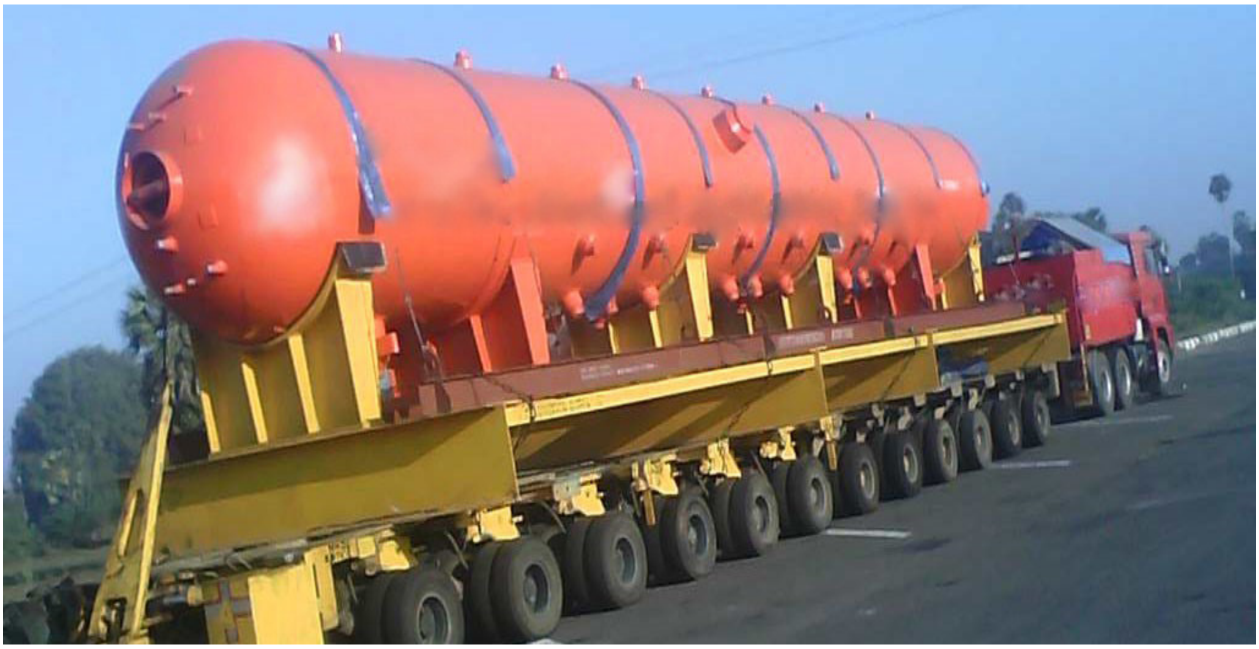

Fig. 4 Trailer Carrying Heavy Machinery

ANNEX B

GOOD PRACTICES FOR ARRANGEMENT OF LOADS

(*Informative*)

(*Clause* 4.1)

B-1 WELL DISTRIBUTED LOADS

See Fig. 5 and Fig. 6.

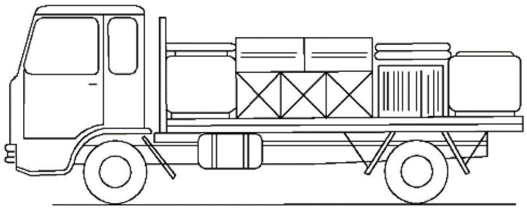

Fig. 5 Example 1 of Well Distributed Load

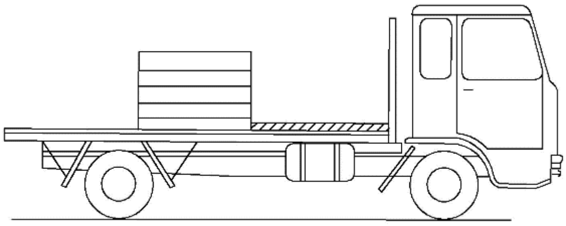

Fig. 6 Example 2 of Well Distributed Load

B-2 BADLY DISTRIBUTED LOADS

Badly distributed loads, such as heavy loads placed at the rear, at one side or at the front of the vehicle platform may cause the maximum axle weight, which may result for axle failure and may be extremely dangerous during travel for the crew of the vehicle and for other road users. *See* Fig. 7 to Fig. 9.

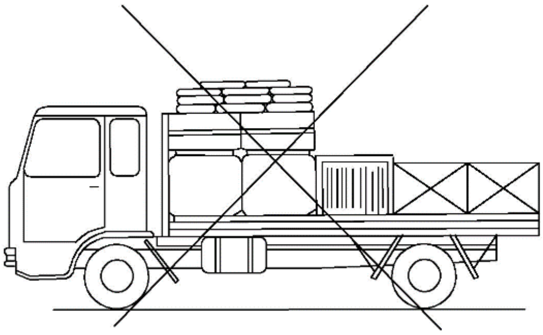

Fig. 7 Example 1 of Badly Distributed Load

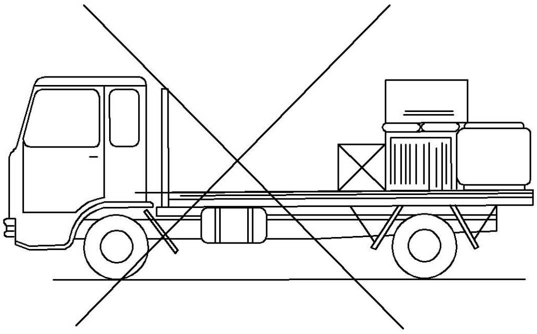

Fig. 8 Example 2 of Badly Distributed Load

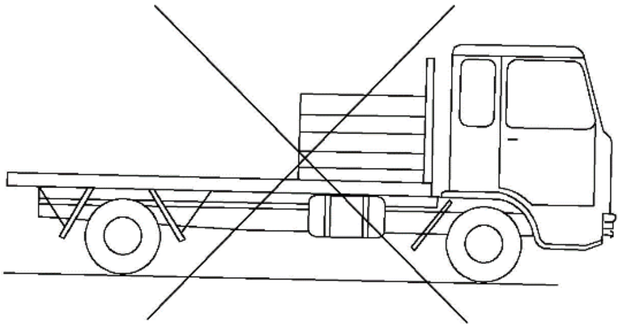

Fig. 9 Example 3 of Badly Distributed Load

B-3 LOOSE BULK LOADS

For loose bulk loads, a high sided vehicle should be necessary and although body height extensions are permitted but these should be purposely designed and constructed, and able to be attached to the existing body by appropriate fixings and not rely on the load for support. Loose bulk loads of any description should be levelled off and not be loaded above the headboard, sideboards or tailgate. *See* Fig. 10 and Fig. 11.

NOT ACCEPTABLE

Incorrect method as load protrudes above sides, and plywood pieces have been used as height extensions.

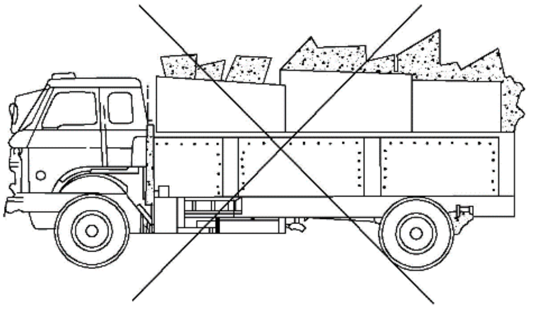

FIG.10

ACCEPTABLE

Correct method using purpose designed vehicle for loose bulk loads, and completely covered with suitable sheeting to prevent any spillage.

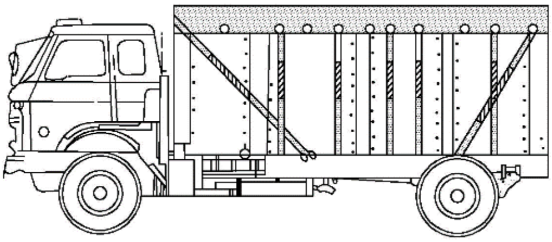

FIG. 11

B-4 TRANSPORTING LONG LOADS

Long metal sections should be carried along the length of the vehicle and be suitably restrained to prevent them from moving. It is essential that these sections are loaded such that the complete load form a unit and no single item can move independently. *See* Fig. 12 to Fig. 15.

NOT ACCEPTABLE

Incorrect method as the load is too long for vehicle and inclined such that rear of load is not adequately restrained and load distribution is also not satisfactory. Further, supporting the load only on the headboard and the extended tailgate is not acceptable and also the use of the tailgate to support any part of the load or as an anchorage point for the lashings is not acceptable.

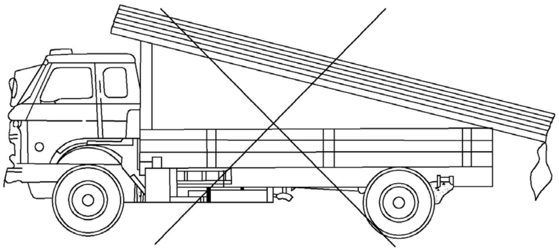

FIG. 12

ACCEPTABLE

Correct method as the load is extended over the headboard and supported by suitable trestles firmly fixed to the vehicle. The load should also be securely lashed to the headboard and all the trestles but not to the tailgate.

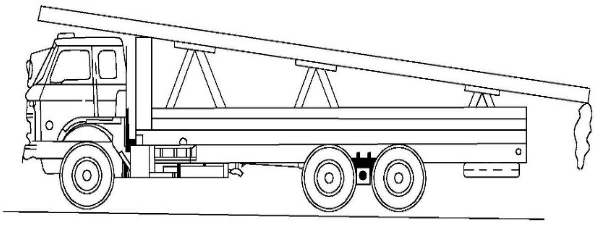

FIG. 13

BETTER METHOD

Load is laid flat; however still has disadvantage that load is too long for the vehicle.

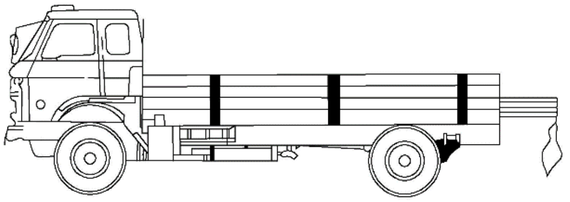

FIG. 14

BEST METHOD

Loads laid flat and completely contained by vehicle; the load is securely lashed to the headboard and the trestles to avoid any forward, rear or lateral movement.

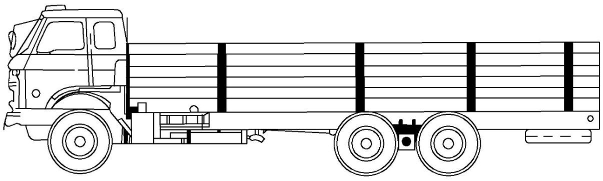

FIG. 15

B-5 ARRANGEMENT OF LOADS FOR VEHICLE STABILITY

Care should be taken while loading the vehicle to ensure that the load is not so arranged that the removal or pickup of any part of it in the course of a journey will adversely affect any axle weight, or the stability of the vehicle. *See* Fig. 16 to Fig. 18.

Load laid flat in purposefully designed vehicle.

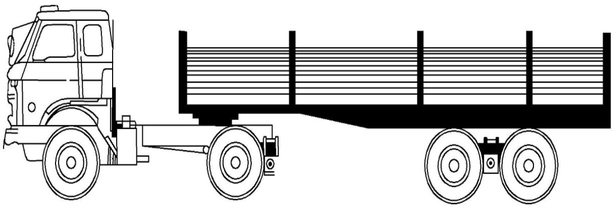

FIG. 16

Proper distribution of load with heavier items at the bottom and the lower packages should be strong enough to support the upper ones when the vehicle is braking, turning or accelerating.

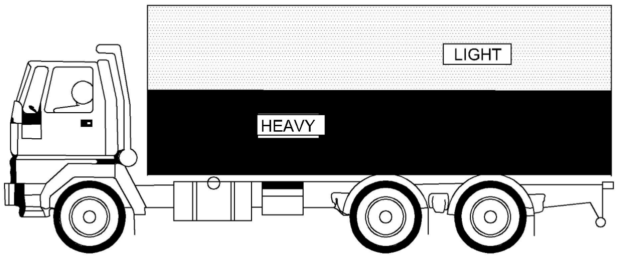

FIG. 17

Heavier items should be placed nearer the longitudinal centre line.

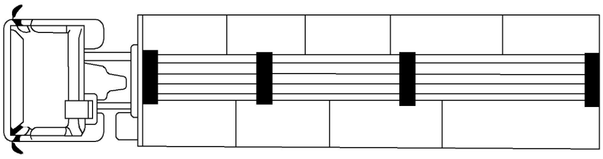

FIG. 18

B-6 TRANSPORTING METAL LOADS

See Fig. 19 and Fig. 20.

Long metal loads should be transported on suitable vehicles which enable the load to be laid flat without overhanging the rear of the vehicle, if possible.

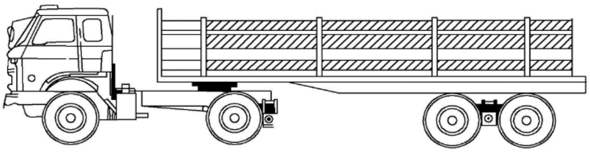

FIG 19

NOT ACCEPTABLE

Use of the headboard and/or tailgate to support long metal loads is not acceptable. Securing the load to any part of the tailgate is also not acceptable.

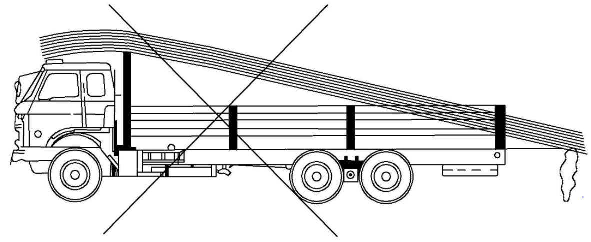

FIG. 20

B-7 PACKED END WRAPPED FOR LOADS, LIKE STEEL RODS/TMT BARS/BILLETS THAT ARE AT RISK OF SLIDING OR SPEARING

See Fig. 21.

For low-friction load items such as reinforcement steel bars or plastic pipes, the load should also be packed with end wraps or blocks to prevent individual items from sliding or spearing out of the pack particularly when the vehicle is braking suddenly.

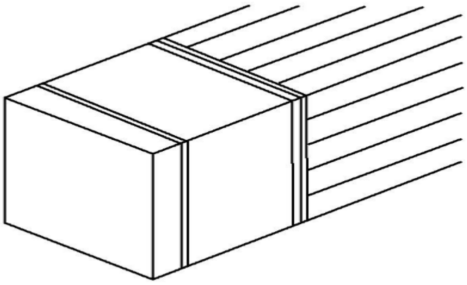

FIG. 21

B-8 TRANSPORTING GENERAL FREIGHT

See Fig. 22 to Fig. 24.

Use of load restraining devices should be ensured where general freight loads exceed the height of any headboard, sideboards or tailgate, load.

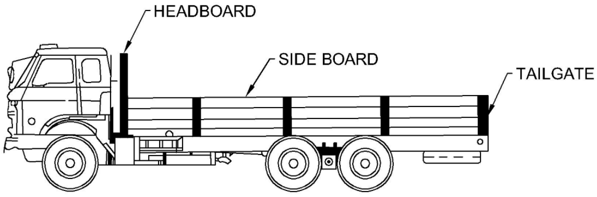

FIG. 22

General freight carried on any platform type vehicles should have load restraining devices.

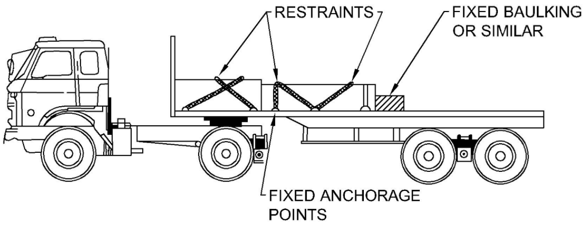

FIG. 23

The angle between the lashing providing forward/backward restraint and the platform should not exceed 60°.

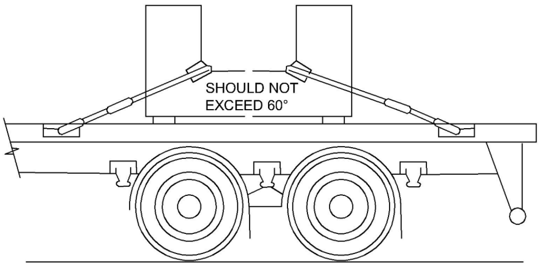

FIG. 24

B-9 TRANSPORTING MIXED LOADS

See Fig. 25 to Fig. 29.

While transporting mixed load, lighter crushable items should be placed to the top and at the front, 'B', while heavy articles to the bottom and rear, 'A' as shown.

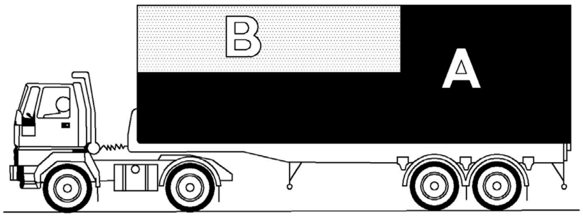

FIG. 25

While transporting mixed load, small containers should be placed in centre while larger containers around the outside.

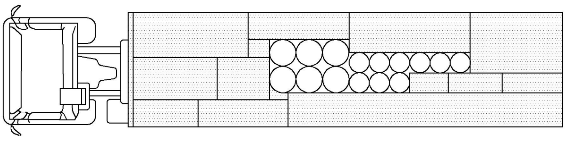

FIG. 26

NOT ACCEPTABLE

Loose baskets/materials should not be carried on cab roof.

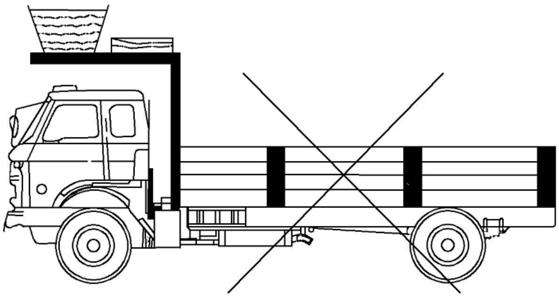

FIG. 27

NOT ACCEPTABLE

This loading method is not acceptable as roof supports are not sufficient on their own as restraint devices and lashings or similar means need to be provided to prevent any part of the load from falling off.

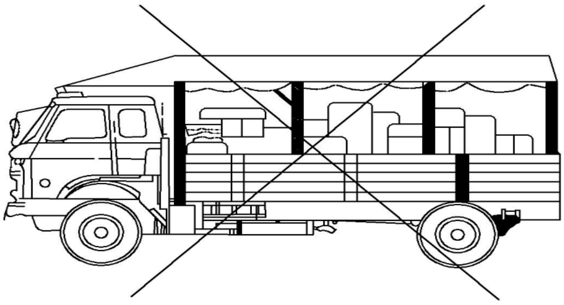

FIG. 28

Mixed loads should always be covered by suitable means to prevent spillage and provide protection to the load.

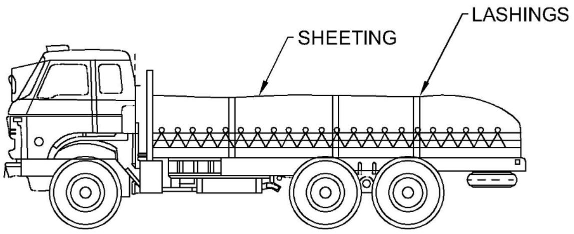

FIG. 29

B-10 TRANSPORTING CRATES

See Fig. 30 and Fig. 31.

NOT ACCEPTABLE

Vehicle has insufficient side restraint to prevent any loose palletized drink crates from falling off.

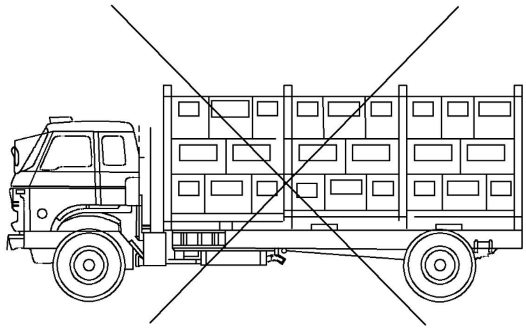

FIG. 30

While transporting crates, sliding partition covers or lashings should ensure any loose crates are securely restrained within the vehicle.

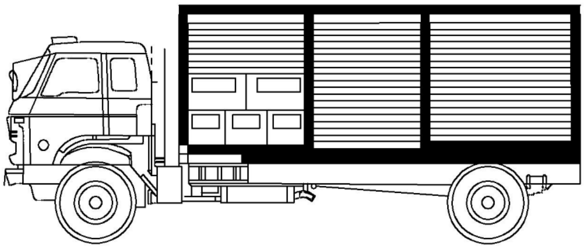

FIG. 31

B-11 TRANSPORTING ROLLS AND DRUMS

See Fig. 32 to Fig. 34.

In case of rolls, bottom layer should be secured by chocks. Roll ‘A’ then loaded and ‘between layer lashings’ then laid over ‘A’ as shown. Second layer should then be loaded, and both ‘top – lashings’ and ‘between layer lashings’ should be tensioned and secured.

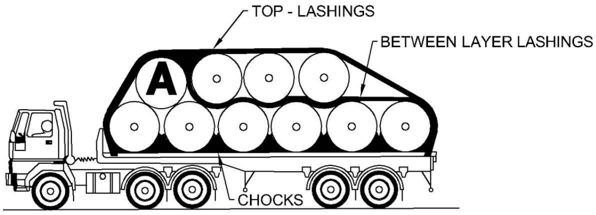

FIG. 32

Whole load should be covered with sheeting to provide additional lateral restraint and weather protection.

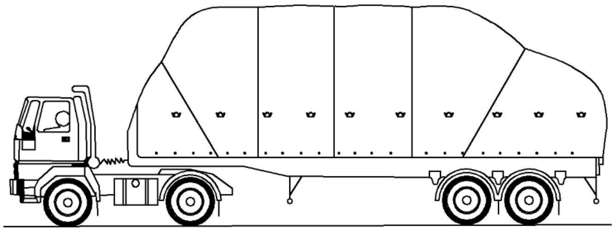

FIG. 33

Drums containing liquid or liquefied material should be stood on end with suitable packing if necessary to prevent movement.

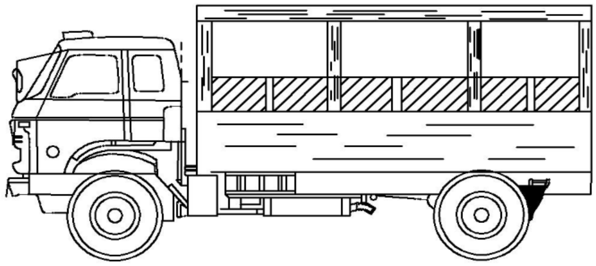

FIG. 34

B-12 TRANSPORTING BOXES AND CRATES

See Fig. 35 and Fig. 36.

Boxes should interlock and be covered.

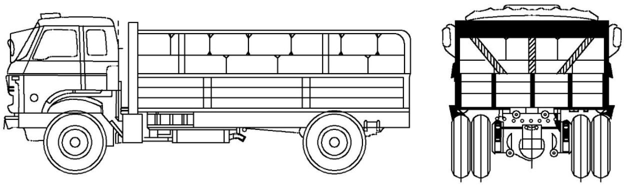

FIG. 35

Boxes and crates should be secured to floor of the platform with at least one lashing for each row, and the whole load should be covered.

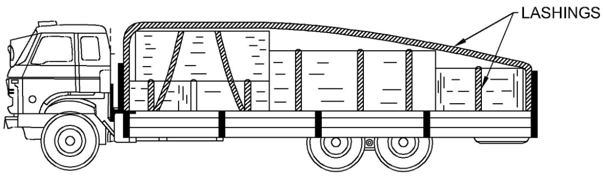

FIG. 36

B-13 TRANSPORTING SACKS AND LOOSE BRICKS

See Fig. 37 to Fig. 39.

Sacks should be laid on their sides with alternate layers in opposite directions.

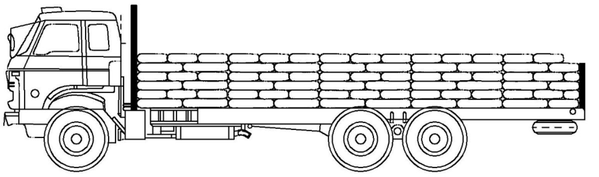

FIG. 37

The loaded sacks should, where practicable, be covered with a suitable sheeting and then cross lashed.

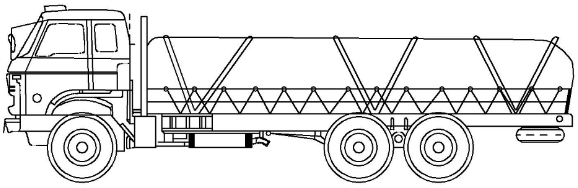

FIG. 38

NOT ACCEPTABLE

Loose bricks should not be loaded above the side or tail boards.

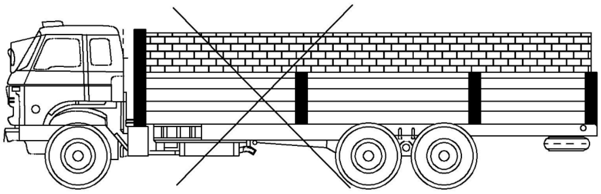

FIG. 39

B-14 TRANSPORTING BAMBOO POLES/BALLIES

See Fig. 40 and Fig. 41.

Bamboo poles/Ballies should be loaded horizontally along the floor of the vehicle, which should be appropriately sized bundles, arranged with the longest and heaviest at the bottom of the load. If the load is not higher than the headboard, tailgate or sideboards, securing bundles together should provide sufficient restraint.

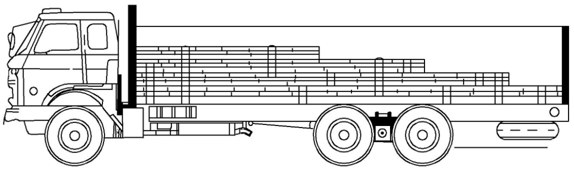

FIG. 40

Where bamboo poles have to extend over the headboard, they should not be positioned any farther forward than the front of the cab, and the weight of the load should be supported by suitable trestles firmly fixed to the vehicle. The load should be securely lashed to the headboard and trestles and not to any part of the tailgate or its hinges.

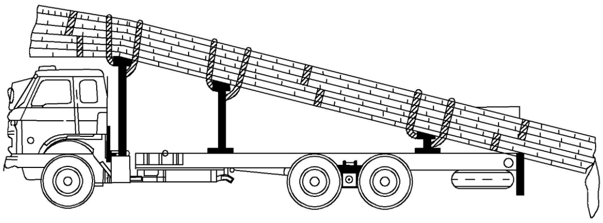

FIG. 41

ANNEX C

(*Foreword*)

COMMITTEE COMPOSITION

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Association of State Road Transport Undertakings (ASRTU), New Delhi	Representative
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Container Corporation of India Ltd, New Delhi	Representative
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Central Institute of Road Transport, Pimpri Chinchwad	Representative
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Dredging Corporation of India Limited, Vizag	Prof G. Y. V. Victor Capt S. V. Prasad (*Alternate*)
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Indian Railways Institute of Logistics and Materials Management, New Delhi	Representative
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Shri Shivam Soni
Scientist 'B' (Service Sector Department-II), BIS

Panel for drafting standard on Transportation of Over-Dimensional Consignment by Road-SSD 01/P1

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